MULTIMEDIA UNIVERSITY

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FINAL EXAMINATION

TRIMESTER 2, 2018/2019

BAC3674 – ADVANCED MANAGEMENT ACCOUNTING

(All sections / Groups)

9 MARCH 2019
9.00 a.m. – 12.00 p.m.
(3 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of 8 pages (excluding cover page) with 4 questions only.

2. Attempt ALL FOUR questions. All questions carry equal marks and the distribution of the marks for each question is given.

3. Please write all your answer in the Answer Booklet provided.

Question 1

Part A

Fish Tempura Sdn Bhd (FT) is planning to open a taco store near new university campus housing. FT estimates that the current neighborhood's fast food market is RM200,000 a year, which will double when the new housing is occupied next year. FT expects to capture 25% of the total neighbourhood market unless McB opens a new store in the area. In that case, FT expects to gain only 10% of the market. FT's gross margin ratio is 30%.

Required:

a) Compute FT's forecasted gross margin for next year without a major competitor. (2 marks)

b) Compute FT's forecasted gross margin for next year with a major competitor. (2 marks)

FT can invest in the store by buying and improving property. Analysts believe there is a 40% chance that McB will enter the market. They have prepared the following NPV estimates:

Decision and competitor's action	**NPV estimate (RM)**
Invest now, without a major competitor	15,063
Invest now, with a major competitor	(28,058)
Invest now, with a major competitor, terminate after one year	(15,556)

Required:

c) Using a decision tree of the investment alternative, compute the expected NPV of the decision to invest now. (5 marks)

Continued.....

FT could defer its decision to invest by one year to learn whether McB will enter the market. Analysts believe there is a 40% chance that McB will enter the market. They have prepared the following NPV estimates:

Decision and competitor's action	NPV Estimate (RM)
Defer the decision, without a major competitor	15,712
Defer the decision, with a major competitor	(17,410)

Required:

d) Using a decision tree of this investment alternative, compute the expected NPV of the decision to defer the decision one year. (5 marks)

From the above,

Required:

e) What is FT's real option value of waiting for one year? (2 marks)
f) Explain the economic meaning of this amount for FT? (2 marks)

Part B

Required:

Discuss the relationship between benchmarking and total quality management (TQM).

(7 marks)

[Total 25 marks]

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Question 2

Part A

RH Bhd is just starting up. The management team has decided from the beginning that decentralization was the preferred organizational style and has made this clear in all interviews and discussions with potential employees. Mr. Pang, the CEO, is unsure about the best way to evaluate his division managers. He has heard the terms return on investment, residual income, economic value added, and flexible budgets but wants to know the pros and cons of each.

Electronic Telephone Systems (ETS), a division of RH Bhd buys and installs modular office components. For the most recent year, the division had the following performance targets:

Asset turnover	2.5
Profit margin	6%
Target rate of return on investments for RI	13%
Cost of capital	10%
Income tax rate	40%

Actual information concerning the company's performance for last year follows:

Total assets at beginning of year	RM3,600,000
Total assets at end of year	RM5,300,000
Total invested capital (annual average)	RM8,000,000
Sales	RM9,000,000
Variable operating costs	RM3,650,000
Direct fixed costs	RM4,770,000
Allocated fixed costs	RM675,000

Required:

a) Briefly describe ROI, residual income (RI), EVA and other approaches to performance evaluation. (3 marks)

b) For ETS, compute the segment margin and the average assets for the year. (2 marks)

c) Based on segment margin and average assets, compute the profit margin, asset turnover and ROI. (2 marks)

d) Evaluate the ROI performance of ETS. (3 marks)

Continued....

e) Using your answers from part b., compute the residual income of ETS. (3 marks)

f) Compute the EVA of ETS. (3 marks)

g) Why are the EVA and RI levels different? (3 marks)

h) Based on the data given in the problem, discuss why ROI, EVA and RI may be inappropriate measures of performance for ETS. (2 marks)

Part B

The following reasons have been offered for holding inventories:

1. To balance ordering or setup costs and carrying costs
2. To satisfy customer demand (e.g., meet delivery dates)
3. To avoid shutting down manufacturing facilities because of
   (a) machine failure
   (b) defective parts
   (c) unavailable parts
4. Unreliable production processes
5. To take advantage of discounts
6. To hedge against future price increases

Required:

Explain how the JIT approach responds ANY FOUR of the above reasons and, consequently, argues for insignificant levels of inventories. (4 marks)

[Total 25 marks]

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Question 3

Part A

KM Sdn. Bhd. (KM) produces two different types of high quality handbags, Luxury and Superior. Each design is made in small batches. The bags are all made on the same special equipment that is expected to operate at capacity. The equipment must be switched over to a new design and set up to prepare for the production of each batches of products.

When completed, each batch of products is immediately shipped to a wholesaler. Shipping costs vary with the number of shipments.

KM uses activity-based costing and provides the following budgeted information for the year ended 31 December 2017:

	Luxury (RM)	Superior (RM)	Total (RM)
Direct material	379,290	412,920	792,210
Direct labour	98,000	120,000	218,000
Manufacturing overhead:			
Set up			65,930
Shipping			73,910
Design			166,000
Plant utilities and administration			243,000
Total			**1,559,050**

Other information follows:

	Luxury	Superior	Total
Number of bags	6,050	3,350	**9,400**
Hours of production	1,450	2,600	**4,050**
Number of batches	130	60	**190**
Number of designs	2	2	**4**

Required:

a) Identify the cost categories (unit, batch, etc.) for each cost category. (2 marks)

b) Identify the most appropriate cost driver for each cost category of manufacturing overhead and explain briefly your choice of cost driver. (4 marks)

c) Calculate the budgeted total costs and cost per unit based on activity-based costing for Luxury and Superior. (6 marks)

Continued....

d) Explain how you could use the information in requirement (c) to reduce costs.
(4 marks)

e) In addition to the manufacturing costs, the firm has determined that the total cost of upstream activities, including research and development is RM180 per unit for both products. The total cost of downstream activities such as distribution, marketing and customer service is RM500 per unit for both products. Compute the full product cost per unit, including upstream, manufacturing and downstream activities. What are the four strategic implications of this new cost result for both Luxury and Superior?
(5 marks)

Part B

XYZ Sdn. Bhd. needs to forecast its personnel department costs. The following output was obtained from a regression programme used to estimate the department's costs as a function of the number of employees:

Dependent variable = Personnel costs

R-square	0.7255
Standard error	612.0926
Observations	24

Independent variable	Coefficients	Standard Error	P-value
Intercept (a)	8,421 (rounded)	2,687.979	0.178
Employees (b)	492.703	164.949	0.045

Monthly data for the past two years were used to construct these estimates. Cost relationships are expected to be the same for the coming period.

Required:

a) What are the estimated personnel costs for 4,200 employees? (2 marks)

b) How confident are you that a significant cost-driver relation exits at alpha equal to 5%?
(2 marks)

[Total 25 marks]

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Question 4

Part A

AMT Sdn. Bhd.(ASB) produces exercise mat for fitness centres all over Malaysia. Sales have increased each year but the price of raw material and other production costs keep increasing, causing its profit margin to drop from 40% to 30%.

Saravanan is the plant manager and was given the responsibility to outsource more of their production to cost efficient outside producer (outsourcer) such as Mat Supplier Sdn. Bhd.(MSSB).

He has just received a report indicating that MSSB could supply the entire annual output of ASB for RM500,000, which is RM322,000 lower than its current production costs.

Saravanan believes that ASB will have to close its production operations to realise the "RM322,000 in annual cost savings".

Budgeted production costs for next year follows:

	RM('000)	RM('000)
Direct Materials (note 1)		**320**
Direct Labour: (note 2)		**300**
Overhead:		
Depreciation-equipment & building	80	
Equipment leasing costs **(note 3)**	12	
Pension expense **(note 4)**	30	
Plant manager and staff **(note 5)**	20	
Corporate allocation	60	**202**
Total budgeted production costs (if produced internally)		**822**

Additional facts regarding the plant's operations are as below:

Note 1:
ASB maintains excellent record of customer service and reliability and is committed to use high quality material. It has signed a one-year supply contract, if these orders are cancelled, ASB has to pay termination penalty amounting to 10% of the cost of direct material.

Note 2:
A clause in ASB's contract with the union, ASB has to pay RM50,000 as employment compensation to its former employees.

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Note3:
ASB can terminate this lease by paying the equivalent of half month's lease payment for each of the two years left on its lease agreement.

Note 4:
Some employees would elect early retirement and RM20,000 would continue whether the plant is open or shut down.

Note 5:
Saravanan and his staff will continue to work in other department if the plant is closed.

Sally Teoh, the management accountant has been assigned the task of analysing this offer and recommending whether ASB should accept or reject it.

Required:

a) Prepare a relevant cost analysis that shows whether ASB should make or buy the exercise mat from MSSB. (12 marks)

b) Identify and discuss the 8 strategic/qualitative factors that ASB should consider in this decision. (8 marks)

Part B

The market price for a product has been RM50 per unit, but competitive pressures have reduced the market price to RM45 per unit. The manufacturing cost is RM38 per unit (including RM22 fixed manufacturing cost and RM16 variable manufacturing cost). Other selling and administrative costs are RM8 per unit.

Required:

a) What is the firm's target manufacturing cost per unit if the profit is to remain unchanged? (2 marks)

b) What three tools (methods) might the company use to achieve the reduction? (3 marks)

[Total: 25 marks]

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